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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/847,187

05/01/2001

Yan Zhou

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EXAMINER

HA, DAC V

ART UNIT

PAPER NUMBER

2634

DATE MAILED: 03/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/847,187

Applicant(s)

ZHOU, YAN

Examiner

Dac V. Ha

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 11-14 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7 and 8 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6 is/are rejected.
- 7) ☒ Claim(s) 5,9 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1, 4** are rejected under 35 U.S.C. 102(e) as being anticipated by Gambuzza (US 6,226,331).

Regarding claim 1, Gambuzza teaches the claimed subject matter as followed.

“a transmit block coupled to transmit discrete multitone modulated upstream data to a subscriber line” (Figure 4, elements 410, 430A-430C, 412; Col. 3, lines 19-20);

“a hybrid network coupled to the subscriber line and the transmit block” (Figure 4, elements 440A, 440B);

“a receive block coupled to the hybrid for receiving discrete multitone modulated downstream data from the subscriber line, wherein the transmit block, hybrid network, and receive block reside within the same integrated circuit package” (Figure 4, elements 440C, 420; Col. 3, lines 19-20; Col. 3, lines 46-48).

Regarding claim 4, Gambuzza further teaches the claimed subject matter “wherein the hybrid is DC isolated from the transmitting and receiving blocks of the analog front end” in the Abstract; Figure 4, elements C3, C4, C9, C10.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Gambuzza.

Regarding claim 6, the claimed subject matter "wherein the transmit block, the hybrid network, and the receive block are fabricated on a same integrated substrate to form a complementary metal oxide semiconductor (CMOS) integrated circuit" would have been obvious to one skilled in the art at the time of the invention since CMOS is the technique of choice for IC.

5. **Claims 2, 3** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gambuzza in view of Hjartarson et al. (US 6,295,343) (hereinafter Hjartarson).

Regarding claim 2, Gambuzza teaches all the claimed subject matter in claim 2, as applied to claimed 1 above, except for the claimed subject matter "wherein the hybrid is a first order hybrid network".

However, in the same field of endeavor, Hjartarson teaches the claimed subject matter "the hybrid is a first order hybrid network" in Col. 7, lines 27-28 for optimization and simplification of the circuit. Therefore, it would have been obvious to a person of

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ordinary skill in the art at the time of the invention to incorporate such teaching by Hjartarson into Gambuzza for optimization and simplification of the circuit.

Regarding claim 3, Hjartarson further teaches the claimed subject matter "wherein the hybrid is tunable" in Col. 6, lines 44-59.

Allowable Subject Matter

6. **Claims 5, 9, 10** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. **Claims 7, 8** are allowed.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tamura et al. (US 6,498,511) disclose a Receiver, Hybrid Circuit, Driver Circuit, And Signal Transmission System For Bidirectional Signal Transmission For Carrying Out Such Signal Transmission In Both Directions Simultaneously.

Williamson et al. (US 6,477,249) disclose a Communications Signal Splitter And Filter.

Strait (US 6,266,367) discloses a Combined Echo Canceller And Time Domain Equalizer.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 703-306-5536.

The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Dac V. Ha', with a horizontal line underneath.

Dac V. Ha
Examiner
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